

Abstract:

5 [0154] An electro-kinetic air conditioner for removing particulates from the air creates
an airflow using no moving parts. The airflow is subjected to UV radiation from a germicidal
lamp within the device. The conditioner includes an ion generator that has an electrode assembly
including a first array of emitter electrodes, a second array of collector electrodes, and a high
voltage generator. The device can also include a third or leading or focus electrode located
10 upstream of the first array of emitter electrodes, and/or a trailing electrode located downstream
of the second array of collector electrodes, and/or an interstitial electrode located between
collector electrodes, and/or an enhanced emitter electrode with an enhanced length in order to
increase emissivity.

1028US4